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The importance of the interstate commerce that is conducted through our electricity transmission system dictates that there will be a federal role in ensuring reliable transmission systems that support fair and efficient competitive regional wholesale electricity markets. DOE is committed to taking a leadership role in addressing emerging transmission bottlenecks that threaten our national interests. Furthermore, DOE will develop the state-of-the-art tools needed to evaluate the system's operation and efficiency, and will continue to work with industry and Congress to ensure that basic transmission research and development continues.

DOE's Commitment and Leadership

DOE is the lead federal agency responsible for developing sound and secure national energy policy. DOE funds and promotes new transmission technologies, oversees the federal Power Marketing Administrations, issues permits for cross-border transmission lines, and addresses national energy security.

DOE must also take responsibility for identifying and helping eliminate transmission bottlenecks of national importance, and for developing the tools needed to ensure efficient regional markets.

DOE's objective is simple: to provide our citizens with a reliable supply of electricity at the lowest possible cost. During the early 1990s, the department worked closely with the Administration and Congress to support this objective through the Energy Policy Act of 1992, which moved the nation toward competitive electricity markets.

Opening the electricity industry to competitive wholesale markets has resulted in newer, cleaner power plants that cost less and are more efficient than older power plants. Where less than 200 heavily-regulated, vertically-inte-

grated electric utilities used to control more than 80 percent of the industry, non-regulated power producers now account for the majority of new power plant additions. Consumers have benefited from lower electricity bills. But, we cannot stop here; there are many more economies to be gained by completing the transition to competitive electricity markets.

Differences in electricity prices prompted the push for competition. Under monopoly regulation, some consumers used to pay many times more than others for wholesale electricity. Competitive markets give firms incentives to lower costs, improve efficiency, innovate, and provide new services to consumers. The electricity industry is still undergoing substantial change. Although industry participants do not agree on how best to achieve the ultimate objective of reliable supplies at the lowest cost, they do agree that, in order to obtain the full benefits of competitive electricity markets, we need to dramatically improve our electricity delivery system.

Developing and implementing policies that will lead to needed beneficial investments in

the nation's electricity transmission system and support fair and efficient regional wholesale electricity markets will be challenging. The public interest is foremost and the views of consumers, states and industry must be heard and considered. Accommodating diverse interests is imperative because federal transmission policies will only work if they can be supported politically and implemented; the recommendations contained in this study will help guide us.

Some of the recommendations included in this report are not new. Similar recommendations have been made in other DOE reports in recent years.

For example, the Secretary of Energy Advisory Board's 1998 report "Maintaining Reliability in a Competitive U.S. Electricity Industry" recommended that DOE:⁴³

- Develop methods for sharing generation- and transmission-planning data;
- Study and recommend performance-based rates and other transmission pricing methods;
- Help modify reliability rules to reduce congestion;
- Adopt open standards for control centers; and
- Further promote reliability technologies.

In addition, DOE's Power Outage Study Team "Findings and Recommendations to Enhance Reliability from the Summer of 1999" proposed:⁴⁴

- An increased federal leadership role in electricity reliability issues;



- Support for market rules for customer demand response;
- Support for interconnection standards for distributed generation;
- Support for mandatory reliability standards;
- Sharing of "best practices" for distribution;
- Use of uniform definitions and measurements for reliability information;
- Development of real-time system monitoring and control equipment; and
- Improvement of analytic models for load forecasts and power-system simulation.

DOE has acted on some of these recommendations, but it has not followed through on all of them due to limited resources, a lack of focus, and a lack of accountability. DOE will improve on this record in two steps. First, DOE commits to addressing administratively the concerns of

⁴³Download from <http://vm1.hqadmin.doe.gov/seab/esrfinal.pdf>

⁴⁴Download from <http://www.pi.energy.gov/pilibrary.html>

focus and accountability. Second, DOE will work with the Administration and Congress to identify and allocate appropriate resources.

The department is committed to implementing the recommendations of the National Transmission Grid Study to ensure needed, beneficial investments in the nation's transmission system. To accomplish this task, the department will reorganize itself to combine its divergent electricity delivery system resources into a single, focused Office of Electric Transmission and Distribution.

This new program office will:

- Fund transmission- and distribution-system R&D;
- Promote and foster the deployment of new transmission- and distribution-system technologies;
- Develop the data and analytical tools necessary to assess the reliability and performance of the transmission and distribution system;
- Conduct research on electricity market designs and evaluation of market performance;
- Designate national-interest transmission bottlenecks;
- Approve cross-border transmission lines; and
- Support the Power Marketing Administrations' efforts to eliminate transmission bottlenecks, introduce new technologies that increase the reliability and efficiency

of the transmission system, and help ensure that best practices are shared.

For DOE to become a leader in shaping electricity policy, this new Office of Electric Transmission and Distribution must be responsible and accountable for our efforts to improve the system.

DOE has many tools at its disposal to carry out these responsibilities. In the fall of 2001, DOE executed two memoranda of understanding to address electricity issues that affect both state and federal interests. These partnerships, with the National Governors Association and the Western Governors' Association, respectively, should provide a solid basis for implementing many of this study's recommendations.

In addition, DOE has the authority to propose rules and forward them to the FERC for debate. Although not often used in the past, DOE will actively review and pursue appropriate opportunities to use this authority in the future.

DOE, in its leadership role for the development of electricity policies, must change its organizational structure, become proactive in FERC rulemakings, encourage the use of new technologies as a solution to transmission system problems, and identify and help eliminate the nation's most significant bottlenecks. DOE must work with regions, states, and localities to ensure that national-interest transmission bottlenecks are remedied appropriately.

RECOMMENDATION

- DOE will create an Office of Electric Transmission and Distribution.
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